CLAIMS

1. A method of data transmission between an electromedical implant (1) having a first transmitter/receiver unit, in particular an implant for cardiological uses, and an associated external apparatus (2) having a second transmitter/receiver unit (6), in which data transmission begins with a triggering signal which is sent by the one transmitter/receiver unit to the other transmitter/receiver unit and which in normal operation of the implant (1) is sent in predeterminable first time intervals, characterized in that the triggering signal is always emitted by the first transmitter/receiver unit, wherein at least the reception readiness of the first transmitter/receiver unit is maintained after emission of the triggering signal for a second time interval.

2. A method as set forth in claim 1 characterized in that at least the receiving portion of the first transmitter/receiver unit is switched off after termination of the second time interval during a rest phase which extends until the next triggering signal.

3. A method as set forth in claim 1 or claim 2 characterized in that the second time interval is shorter than the first time interval.

4. A method as set forth in ~~one of the preceding claims~~ Claim 1 characterized in that the triggering signal is formed by or includes a first data set which is to be transmitted.

5. A method as set forth in ~~one of the preceding claims~~ Claim 1 characterized in that emission of the triggering signal is caused manually, in particular by the wearer of the implant.

6. A method as set forth in ~~one of the preceding claims~~ Claim 1 characterized in that in response to a transmission of data by the first transmitter/receiver unit

the second transmitter/receiver unit (6) sends a first acknowledgment to the first transmitter/receiver unit, wherein the first acknowledgment includes at least one first item of control information for controlling the reception readiness of the first transmitter/receiver unit.

7. A method as set forth in claim 6 characterized in that the first acknowledgment is formed by or includes a second data set which is to be transmitted.

8. A method as set forth in ~~one of the preceding claims~~ claim 1 characterized in that the external apparatus (2) implements a first plausibility check in respect of the data transmitted by the first transmitter/receiver unit and in dependence on the plausibility of the transmitted data the first acknowledgment includes a second item of control information for control of the first transmitter/receiver unit, wherein in the event of lack of plausibility of the transmitted data the second control information includes a first control signal for triggering a renewed transmission of data by the first transmitter/receiver unit.

9. A method as set forth in claim 8 characterized in that the first transmitter/-receiver unit in response to the first control signal implements a renewed transmission of data only if a number of renewed transmissions, which is sufficiently low to avoid overloading of the power supply of the implant (1) is not exceeded.

10. A method as set forth in claim 8 or claim 9 characterized in that for checking the transmission of the data by the implant (1) in the case of plausibility of the transmitted data the second transmitter/receiver unit (6) sends at least a part of the transmitted data to the first transmitter/receiver unit.

11. A method as set forth in claim 10 characterized in that after checking of the transmission of the data by way of the first transmitter/receiver unit the

implant (1) sends a second acknowledgment to the second transmitter/-receiver unit (2), wherein when successful transmission of the data is established the second acknowledgment includes a first signature representing validity of the transmission and the implant (1) closes down at least the reception readiness of the first transmitter/receiver unit.

12. A method as set forth in claim 11 characterized in that the external apparatus (2) implements a second plausibility check in respect of the second acknowledgment and when lack of plausibility of the second acknowledgment is established after expiry of a further time interval after dispatch of the second acknowledgment implements an interrogation of the implant (1), wherein after the expiry of the further time interval the implant (1) assumes reception and transmission readiness of the first transmitter/-receiver unit for a renewed further time interval which is sufficient to receive and answer an inquiry from the external apparatus (2), and wherein the answer to the inquiry is effected by renewed sending of the second acknowledgment and/or the data which were sent last.

13. A method as set forth in ~~one of the preceding claims~~ claim 1 characterized in that when defective transmission of data is established a renewed transmission of data is effected by the first transmitter/receiver unit if a number of renewed transmissions, which is sufficiently low to avoid overloading of the energy supply of the implant (1), is not exceeded.

14. A method as set forth in ~~one of the preceding claims~~ claim 1 characterized in that renewed transmission is effected after expiry of a waiting time interval, wherein in the case of multiple renewed transmission the length of the waiting time interval preferably increases.

15. A method as set forth in ~~one of the preceding claims~~ claim 1 characterized in that after renewed transmission of data by the first transmitter/receiver unit the

method steps are executed again beginning with the plausibility check.

16. A method as set forth in ~~one of the preceding claims~~ claim 1 characterized in that the second transmitter/receiver unit (6) is substantially permanently ready to receive in the initial condition up to the first data exchange with the implant (1) and at least during the first data exchange reduces the transmission or reception readiness of the second transmitter/receiver unit (6) to a periodic transmission or reception readiness interval, wherein the second transmitter/receiver unit (6) is synchronized with the first transmitter/receiver unit in such a way that the transmission or reception readiness intervals of the first and second transmitter/receiver units overlap.

17. A method as set forth in claim 16 characterized in that in the event of non-receipt of transmissions of the first transmitter/receiver unit at the second transmitter/receiver unit (6) over a predetermined number of transmission or reception readiness intervals of the second transmitter/receiver unit (6) the transmission or reception readiness interval of the second transmitter/receiver unit (6) is prolonged to catch a divergence drift of synchronicity.

18. A method as set forth in ~~one of the preceding claims~~ claim 1 characterized in that at least the first time interval is variable during operation by sending a second item of control information by the second transmitter/receiver unit (6) to the first transmitter/receiver unit which is ready to receive.

19. A method as set forth in ~~one of the preceding claims~~ characterized in that the first time interval is varied in dependence on the operating parameters of the implant (1).

20. A method as set forth in ~~one of the preceding claims~~ claim 1 characterized in that when appropriate operating parameters of the implant (1) apply the first transmitter/receiver unit emits an emergency triggering signal to the second

transmitter/receiver unit (6) for triggering an alarm signal.

21. An apparatus for data transmission between an electromedical implant (1) having a first transmitter/receiver unit, in particular an implant for cardiological uses, and an associated external apparatus (2) having a second transmitter/receiver unit (6), in which data transmission begins with a triggering signal which is sent by the one transmitter/receiver unit to the other transmitter/receiver unit in normal operation of the implant (1) in predeterminable first time intervals, characterized in that the triggering signal is always emitted by the first transmitter/receiver unit, wherein at least the reception readiness of the first transmitter/receiver unit is maintained after emission of the triggering signal for a second time interval.

22. Apparatus as set forth in claim 21 characterized in that at least the receiving portion of the first transmitter/receiver unit remains switched off after termination of the second time interval during a rest phase which extends up to the next triggering signal.